

with one anterior on the peduncle. The first dorsal has two bands parallel with its upper margin; the second has three narrower longitudinal bands.

A single specimen of the species was found in the island of Trinidad, near the mouth of a river in the vicinity of the celebrated Pitch Lake.

Description of a new South American type of SILUROIDS, allied to *Callophysus*.

BY THEO. GILL.

PIMELETROPIS Gill.

Body naked, moderately elongated and compressed, tapering to the caudal. Head cuneiform in profile, depressed and ovate above, and sloping rapidly outwards. Supraoccipital extended longitudinally backwards, but not connected to a dorsal buckler. Eyes submedian and oblique. Barbels six, consisting of the maxillary and two pairs of mental. Branchial apertures large and continuous under the throat. Branchiostegal rays generally eight. Mouth moderate and terminal; upper jaw slightly protruding. Teeth uniserial, wide, straight and truncated. Lateral line straight and extending to the caudal; anteriorly with lateral branches. Dorsal fin quadrangular, elevated anteriorly, and with its first ray simple and slender. Adipose fin elongated and cariniform. Anal fin similar in form to the dorsal, and under the adipose fin. Caudal fin deeply emarginated, and with equal and pointed lobes. Pectorals pointed, and with the superior ray simple and slender. Ventrals with the second ray longest.

*Pimeletropis* agrees in almost all of its essential characters with *Callophysus* of Müller and Troschel, but differs in the presence of the single row of teeth in each jaw. The same character, in connection with others, distinguishes it from *Pimelotus* Gill.

PIMELETROPIS LATERALIS Gill.

The elongated and slender body is highest under the dorsal, and from its termination the dorsal outline commences to slope backwards to the end of the long adipose fin, under the first half of which it is slightly curved, and then nearly straight; the caudal peduncle is slender and elliptical, but at the base of the caudal fin it appears compressed and expanded superiorly and inferiorly, from the recurrence of the rudimentary rays of the fin. The greatest height is about a sixth of the entire length from the snout to the concave margin of the caudal fin; that of the peduncle is little more than a third of the former.

The lateral line is perfectly straight, and is anteriorly furnished with diverging branches, which tend obliquely and posteriorly.

The head is above of an oval form, and declines to the region of the posterior nostrils, in a slightly concave line, to the eyes; the sides are posteriorly rounded near the skull, and thence descend obliquely outwards to the opercular margin. The head, from the snout to the margin of the operculum, forms nearly a fifth of the total length, and its greatest breadth bears a relation to this length of fourteen to nineteen. The width regularly diminishes from this point to the angle of the mouth, where the proportion is as ten to nineteen. The snout is obtusely horizontally rounded, and the space between the anterior and posterior nostrils is convex.

The skin is mostly smooth, but papillæ cover the space between the eyes and over the fontanelle; there are also a few meandering dermal grooves below and behind the eyes.

The supraoccipital process is linear, and four times longer than broad.

The eyes are longitudinally oval and contracted by the skin; the longitudinal diameter within the skin exceeds a seventh of the head's length; their ante-

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rior borders are midway between the snout and opercular margin; the distance from each other is as seven to three, but the interorbital space is only as five and a half to three.

The roof of the mouth is studded with papillæ, especially in a transverse line on the palate.

The lips are thick and minutely papillated.

The maxillary barbels are attenuated at their ends, and extend to or beyond the caudal base.

The teeth are straight and compressed, with parallel sides, and imbedded in the gums; the distance between each is equal to its width. There are more than forty in the upper, and more than fifty in the lower jaw. Behind the teeth there is a papillated ridge, but no teeth.

There are eight branchiostegal rays.

A distinct pectoral pore is present.

The dorsal commences behind the second fourth of the length of the fish, and its anterior ray is longest, and almost equals the height of the body.

The adipose fin is very long and abruptly truncated posteriorly; it is distinctly striated, so as to present a finely rayed appearance.

The caudal fin is deeply lunate; its central rays form an eleventh of the element length, and its longest are equal to a fifth.

The pectorals are pointed, and equal a fifth of the length.

The ventrals are shorter than the pectorals, and the second ray is longest.

The following formula indicates the number and character of the rays:—

$$D \begin{matrix} 1 \\ 1 \end{matrix} 1, 5 - \begin{matrix} 1 \\ 1 \end{matrix} 0; A \begin{matrix} 1 \\ 1 \end{matrix} 4, S -; C \begin{matrix} 1 \\ 1 \end{matrix} 19, I, 7, 8, I, 13; P \begin{matrix} 1 \\ 1 \end{matrix} 1, 12; V \begin{matrix} 1 \\ 1 \end{matrix} 1, 15.$$

The color is silvery beneath, and above merges into a light purplish hue. Along the side there are a number of distinct, nearly round dusky spots. The fins are pearly, opaque at the bases.

The specimen from which this description has been taken, was presented by Mr. A. Edwards to the Lyceum of Natural History, of New York. It was obtained from the Amazon River, with *Cetopsis candiru* Ag., *Euctenogobius bodius* Gill, *Sternopygus macrurus* M. and T., and other species.

New genera and species of North American TIPULIDÆ with short palpi, with an attempt at a new classification of the tribe.

BY BARON R. VON OSTEN SACKEN.

Little attention has been paid by former authors to the North American species of the genera *Limnobia* Meig., and *Erioptera* Meig., and the number of those already described is not at all in proportion to the great number of species of some other genera, which have been made known, (as, for instance, *Tabanus*, *Anthrax*, and the family of *Asilidæ*.)

In my Catalogue of the described Diptera of North America, published in 1858 by the Smithsonian Institution, not more than 23 species, coming within the scope of the present publication, are enumerated.\* The considerable number of new species of this family contained in my collection of North American Diptera, induced me to undertake their publication.

It was only natural to expect that among so many new species, some new genera would occur. Whosoever has paid any attention to the classification of the *Tipulidæ with short palpi*, knows how very imperfect this classification is, and how the principal genera are established on the habitual and artificial characters. It became necessary, therefore, before proposing new genera to revise the old ones, and to establish them on better characters. I have attempted this, but in judging what I have done, it should be borne in mind, that this 1859.]